

tention is called to them. Another point is that stenosis due to pressure from without is very unusual: according to the literature that has just been compiled, this is the tenth case on record.

### A FEW POINTS IN REGARD TO CANCER OF THE UTERUS.

By EDW. C. MANN, M. D., San Diego.

In bringing this subject before you this evening I make no excuses for when we consider the frightful mortality from cancer in women enough cause is shown why we should bring up this subject frequently and impress upon all the value of early diagnosis and the newer methods of operation and treatment.

Upon the subject of diagnosis there can not be much new to offer. A wrong diagnosis is seldom made by any man who takes the trouble to examine his cases. But the early cases are too often neglected by the busy practitioner or frequently the patient herself is at fault, refusing examination or not consulting a doctor because she is afraid she will be told she has a cancer or operation will be advised. The title of a book by Dr. Van DeVere of Albany, "She Thought it Was Her Change of Life," brings before our minds the cause of lack of early diagnosis in many of these cases, and here I would like to say it is the duty of every one interested in the subject of medicine to impress upon all women the fact that flooding and vaginal discharge at the time of the climatrix is not a normal condition and any deviation in the health of the pelvic organs or in the normal stoppage of the menstrual flow should be a signal for vaginal examination. You, of course, all know that pain is not an early symptom of cancer but most of the laity do not and it is our business to make them understand it.

Cancer of the fundus uterii is, compared to that of the cervix, almost a benign condition. The average age of those having that form is usually greater than those having the cervical type and the growth is slower and remains confined to the uterus for a much longer period and the consequent mortality is low both from the standpoint of recurrence and surgery. The surgical mortality should not be much over 2% and 60-65% of those operated on early should have no return. A complete hysterectomy making as wide a sweep of broad ligaments and parametrium as possible is here all that is necessary and usually gives good results.

In cancer of the cervix we have to do with an entirely different condition. The diagnosis is almost always very easy. Clinically the finger nail and pathologically the microscope will always tell us and absolutely no excuse is possible for the man who fails to make a diagnosis of even an early case of cancer of the cervix.

The questions most under discussion at the present time are first, which are the operable cases and how radical an operation should be made.

Bovee answers our first question by saying that it depends in a large measure on the operator as that which is operable to one operator is not to another. The older method of determining the

operability by the movability of the uterus must be superseded by a more careful examination and in many cases an exploratory incision must be made before it can be determined how far the cancer has progressed and we make a prognosis of hopeless and incurable cancer. In all cases the cancer mass should be curetted away and then one can better determine how far the broad ligaments, the bladder, rectum and uterus are involved. A fixed uterus may sometimes be successfully operated on because the rigidity of the broad ligaments may be due to inflammatory conditions spreading from infection in the growth and also a comparatively large mass, apparently immovable, may have no metastases in the lymphatics or parametrium.

The lymphatics which become involved early in cervical cancer are situated mostly in the parametrium and along the large blood vessels of the lower abdomen (iliac and inguinal region).

In two-thirds of the so-called operable cases the cancer has spread outside the cervix, the parametrium being involved in almost all of these either by direct extension or lymph involvement. In about one-third of these cases that we operate on, lymph glands scattered throughout the abdomen will be found involved.

In some types the bladder is one of the first to be invaded, which will make operation almost hopeless. Cancer will also spread by continuity, slender filaments running out following nerve and lymphatic spaces.

To cure all of these operable cases it would be necessary to dissect the lymphatics from the blood vessels, free all tissue lateral to cervix and the lower part of each uterine, removed the posterior wall of the bladder as well as the uterus. These conditions are manifestly impossible of accomplishment and so we must expect return in many cases. I believe that when the bladder is involved or the lymph glands with the exception of those in the parametrium we can not prevent return. Theoretically, then, if we remove a considerable portion of vaginal wall and most of the parametrium with the uterus and have no primary mortality or secondary cancer infection we might expect cure in two-thirds of the early cases.

A few years ago the best men in the country showed not over four to eight per cent. of cures and with the ordinary hysterectomy that proportion is all we can expect. The cancer recurring in the scar or parametrium showing a wide enough incision was not made.

To Emil Ries of Chicago and Wertheim of Berlin are due the formation of a school of more radical operation. Ries is the most radical of all the men doing this work. Wertheim more or less following Ries has developed a technic which with some slight modifications has become almost standard for this operation. He claims about forty-five to fifty per cent. of cures (five years) and a primary mortality of about ten to fifteen per cent. Ries has a higher primary mortality, fifty per cent. or more, but not more than one to two per cent. of returns.

Almost no American surgeons are doing the radical operation of Ries at the present time and

comparatively few following that of Wertheim, but many of our best gynecologists, Kelly, Clark, Cullen, Webster, Peterson, Boldt, Stone, etc., favor and are doing the radical operation. The reason why the average surgeon does not attempt it is because of the difficulty, even for men with special training in pelvic work. Jacobson of Toledo found that only twenty-two out of three hundred thirty men approached, were doing this form of operation.

With the more radical operation the number of patients that can be operated on with a chance of success has increased probably by one-fourth.

My own experience with this operation is not large. A short time after Wertheim's paper appeared in *Surgery Gyn. and Obst.* I worked it out on two cadavers and have since operated on three cases and was forced to give up the complete work on a fourth because of the thick abdominal wall. Of my three cases all survived the operation. Two are alive and well (1-3 yrs.). The other had a recurrence six months afterwards.

Detailed accounts of this operation will be found in the newer text book and I will only give the principal steps of the operation, which are as follows:

1. Curette away as much of the mass as possible and cauterize.
2. Ligate ovarian artery at the top of broad ligament.
3. Ligate round ligament.
4. Separate peritoneum along round ligament and continue this through vesico uterus fold.
5. Follow ureter from posterior half of broad ligament to parametrium.
6. Ligate uterine artery outside crossing with ureter.
7. Vagina separated from rectum and bladder.
8. Two L-shaped clamps applied to vagina below cervix and mass removed.

It is probably best to catheterize ureters before operation to make them more prominent.

This operation is, I believe, the best we have at present and can be done by most operators if the anatomy of the parts is well known.

So much for the operable cases. What are we going to do with those that have advanced beyond the reach of the knife? I believe without question the cautery is next in order, not the paquelin or the soldering iron, for the heat from these is not great enough, but the galvano cautery will bake the growth to a considerable depth. Bryne Boldt, Fridreick Gelihan and others have used it with good results, obtaining relief from the symptoms, prolonging life and in some cases absolutely curing the patient.

Dr. Gelhorn has advocated acetone in the treatment of the bleeding discharge and odor accompanying the ulcer. It is applied on pledgets of cotton and left in place for twenty-four hours. The results as far as the conditions for which it is used are extremely satisfactory and I have used it on eight or ten cases with very good results. I have not found that it inhibited the growth.

The medical treatment of cancer as far as dis-

placing the surgical is still in the future. One drug after another as well as X-ray has been tried and found wanting and until the last few years surgery and morphine were our only resorts. Whether they will ever be superseded remains to be seen.

Great efforts are being made in the various cancer laboratories of the country and a few months ago I had a chance to follow the work of New York State Cancer Laboratory in Buffalo. They are following two main lines of work, a laboratory diagnosis and a serum or vaccine treatment.

The vaccine therapy has given an impetus to a new form of treatment in which the patient's immunity is raised in an effort to overcome the disease. Not any very startling results have been announced as yet and it is probable that a patient with low resistance in the last stages of the disease will not be helped, but rather the opposite.

In 1907 Dr. R. H. Gaylord of the Cancer Laboratory tried the injection of an emulsion of cancers in one of my cases in the wards of the Buffalo General Hospital. This was done in the same manner that Gilman has since advocated. The result was not good and the patient died rather sooner than she otherwise would, she having no immunity and the large dose doing more harm than good. Within the last year under more scientific principles the same line of work has been carried out with much better results. At the last meeting of the American Society of Cancer Research some very interesting papers were read, among them one by one of Dr. Gilman's co-workers, who had been with him in the Philippines. He analyzed these results and they were distinctly bad. They could not find a case in which a return was prevented by the vaccine, although a few cases were benefited for a number of weeks, but these were cases in which a streptococcus infection was produced (Coley). In most of these cases an emulsion was prepared with carbolic acid or formaline and with this absolutely no result was produced. In the New York State Laboratory a powder is used prepared from either a rat or a human tumor. It is first frozen and dried in a vacuum then pulverized for four days in a ball mortar which apparently sterilizes it. It is then used by mixing with salt solution. The dose is only 3-4 mg., a very small dose compared to Gilman's, but it can be repeated once a week for some time. The results although not brilliant still promise something for the future. Two or three inoperable cases have been cured and others relieved from pain, but in cases that have little immunity the resistance which they have may be broken down.

I have one case which is under treatment and which I am watching with interest. Mrs. T., age fifty-nine years. Mass appeared about three years ago. She was treated for about one year and finally changed doctors. I was asked to operate and when first seen a small tumor the size of a dollar was found below the pectoralis major half way between breast and axilla, the breast being apparently normal. Lymph nodes from the size of

a walnut down, were felt in the axilla. In the operation the nodes mass and part of the breast were removed and a cancer was found involving all three. She made a normal recovery. Gilman's emulsion was used immediately after operation and 1½ yrs. ago I started her on the serum powder, the carcinoma of a rat, and have repeated it five times. The remains of the breast have decreased in size, although without doubt it contained some cancer, notwithstanding the fact that it felt like gland tissue. She has gained weight and no sign yet of reappearance in scar or axilla has been noted. Of course, it is only 2 yrs. since the operation and nothing can be said about cure.

In closing I should like to say that I think the only field as yet for serum treatment is in the inoperable and post operative cases and in operation for cancer the more growth removed the better chance for the patient to develop an immunity.

I also wish most strongly to advocate a more radical operation for cervical cancer for, although the primary mortality is higher, the percentage of cures is greater and unless we hope to get permanent cure hysterectomy for cancer is not a justifiable operation.

#### A CONTRIBUTION TO THE SUBJECT OF PELLAGRA IN CALIFORNIA.

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The attention of the medical profession of California has already been drawn to the menace of pellagra. On December 14th, 1909, Dr. Blue, of the U. S. Public Health and Marine Hospital Service, then at San Francisco, reported one case of that disease and gave a general outline of what was then known of it. In April, 1910, at the Fortieth Annual Meeting of the California State Society at Sacramento, Dr. W. A. Clark of San Leandro demonstrated one case of the disease. He mentioned that several patients, evidently suffering from the same disease, were seen by him prior to the time when Dr. Blue had called his attention to the disease. In discussing this report Dr. D'Arcy Power mentioned that he had seen at least two cases of pellagra prior to the time when his attention was called to the disease. He also expressed his conviction that the disease was not such a recent importation as some imagine.

Since that time there were other contributions to the study of the disease on this coast. However, it is still the firm opinion of many members of the profession that the disease is decidedly rare on this coast and that it therefore does not merit any consideration excepting as a curiosity. The writers of this article are by no means pessimists or alarmists. However, their experience, both in Illinois and, during the past year, in this state, has compelled them to give more than a passing notice to this subject.

It was in May, 1909, at the Cook County Institutions in Illinois, during the superintendency of Dr. Willhite, that one of the senior physicians, Dr. Pollock, became greatly puzzled over

a number of curious cases of "sunburn," which appeared in his department. He states that it was largely a coincidence, when reading Bianchi's Psychiatry he came to the description of pellagra, which so resembled his own cases that he began investigating the subject. Up to that time there had been practically nothing known of the disease in the Middle West. When he became reasonably convinced of his diagnosis he secured consultation with Dr. Lavinder of the U. S. Marine Hospital Service, who confirmed the diagnosis without any hesitation. Further search revealed the presence of over thirty cases of the disease in that institution. An excellent report upon the study of the disease in this institution is to be found in Vol. X, No. 2, of the *Journal of Infectious Diseases*.

The news that pellagra was found in Illinois spread throughout the Middle West, and soon after several other institutions reported similar discoveries. In the Elgin State Hospital in Illinois were found twelve cases. The staggering news came, however, from the Peoria State Hospital where over two hundred cases were reported in August, 1909. These discoveries were verified by experts from the U. S. Marine Hospital Service. The writers have had an opportunity to examine most of these institutional cases and some cases outside of the institutions.

There has been a great deal of work done in Illinois towards the discovery of the cause and pathology of the disease. It would require too much time to go over the studies carefully. Further, it would be of no service as no discoveries were made of any practical importance. Dr. Dick found a bacillus corresponding to the bacillus Maydis, formerly found associated with pellagra and demonstrated that agglutination occurred in every case tested (five cases at 1-10, two cases at 1-20), whereas normal serum in control experiments did not agglutinate the organism except in dilution of 1-2. However, the bacillus failed to produce the disease when injected into the monkeys or fed to them. Further, the blood of pellagrins was found toxic for the monkeys in only one instance and in that instance the results were doubtful. A careful search for the Simulian fly failed. Various methods of treatment were tried and found of little if any value. Among the therapeutic measures was transfusion of blood which was tried in twelve cases at the Cook County Institutions without any convincing results.

The same lack of positive results was reported at the National Conference on Pellagra in Columbia, South Carolina, (1909), and about a year ago by the Illinois Commission on the Study of Pellagra. In only one respect were the reports of definite value. That was in deciding that corn was not the necessary etiological factor, if in fact it ever was of importance. Another important result was a renewed search for the disease, resulting in many new cases being discovered in various parts of the United States. Further, the conviction grew upon every one, who has given the matter serious thought, that